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**FACSIMILE SUBMISSION UNDER 37 CFR 1.8**

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TO:	Examiner Melba N. Bumgarner	FROM:	Kent J. Sieffert
COMPANY:	U.S. Patent & Trademark Office	DATE:	NOVEMBER 6, 2006
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RE:	Response to Restriction Requirement	APPLICATION SERIAL NUMBER:	10/771,641

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PATENTIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Richard E. Raby; Nicholas A. Stark Confirmation No. 3710  
Serial No.: 10/771,641  
Filed: February 4, 2004 Customer No.: 28863  
Examiner: Melba N. Bumgarner  
Group Art Unit: 3732  
Docket No.: 59525US002  
(1004-100US01)  
Title: PLANAR GUIDES TO VISUALLY AID ORTHODONTIC APPLIANCE  
PLACEMENT WITHIN A THREE-DIMENSIONAL (3D) ENVIRONMENT

CERTIFICATE UNDER 37 CFR 1.8 I hereby certify that this correspondence is being transmitted via facsimile to the United States Patent and Trademark Office on November 6, 2006.

By: Beth M. Lindblom  
Name: Beth M. Lindblom

RESPONSE TO RESTRICTION REQUIREMENT

Commissioner for Patents  
Alexandria, VA 22313-1450

Dear Sir:

This response is to the Office Action mailed October 11, 2006. Claims 1-79 have been restricted under 35 U.S.C. § 121 as follows:

- I. Claims 1-38, drawn to a method, classified in class 433, subclass 24.
- II. Claims 39-74, drawn to a system, classified in class 707, subclass 10.
- III. Claims 75-79, drawn to a computer-readable medium, classified in class 700, subclass 98.

Applicants hereby elect Group II with traverse. Applicant reserves the right to submit a Petition From Requirement For Restriction under 37 C.F.R. 1.144.

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**Restriction between Group I and Group II**

In support of the restriction between Group I and Group II, the Examiner cited MPEP 806.05(e) which states that a process and an apparatus for its practice can be shown to be distinct inventions if either or both of the following can be shown: (1) that the process as claimed can be practiced by another materially different apparatus or by hand, or (2) that the apparatus as claimed can be used to practice another and materially different process. The Examiner then stated "in this case the process of invention I can be practiced without the software and module of the system of invention II."

Consequently, the Examiner appears to be asserting that the process as claimed can be practiced by hand. Applicants traverse this restriction. The process recited by claim 1 cannot be practiced "by hand." Moreover, the process recited by claim 1 cannot be processed by an apparatus that is "materially different" from the system recited in claim 39. Independent claim 1 of Group I recites numerous limitations that prevent the recited method from being practiced by hand or by an apparatus that is materially different from the system of claim 39.

As one example, claim 1 recites "rendering a digital representation of a dental arch within a three-dimensional (3D) environment." Therefore, the process of claim 1 requires a 3D environment and, more specifically, rendering a digital representation within that 3D environment. The apparatus of claim 39 requires a rendering engine that renders a digital representation of a dental arch within a three-dimensional (3D) environment. Applicant submits that a person could not "render" a "digital representation" of a dental arch within a 3D environment by hand. Nor could the digital representation be rendered with some apparatus that is somehow "materially different" from a rendering engine that renders a digital representation of a dental arch within a 3D environment, as required by claim 39.

The Examiner has not offered any evidence to support the conclusory remark that the claimed process can be practiced by hand. To the extent the Examiner maintains the restriction, Applicant requests the Examiner to clarify how a digital representation of a dental arch could be rendered within a 3D environment by hand or by an apparatus that is materially different from the rendering engine of claim 39.

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As another example, process claim 1 of Group I recites "displaying a planar guide within the 3D environment as a visual aid to a practitioner in the placement of an orthodontic appliance relative to the dental arch." Apparatus claim 39 of Group II recites "a user interface that displays a planar guide within the 3D environment as a visual aid to a practitioner in the placement of an orthodontic appliance relative to the dental arch." Again, a person could not display by hand a planar guide within the 3D environment as a visual aid to a practitioner in the placement of an orthodontic appliance relative to the rendered digital representation of the dental arch. Nor could a planar guide be displayed within the 3D environment, as required by claim 1, with an apparatus that is "materially different" from a user interface that displays a planar guide within a 3D environment, as required by claim 39.

Consequently, the claimed method of Group I cannot be practiced by hand or by an apparatus that is "materially different" from the claimed apparatus of Group II. Consequently, the restriction between Group I and Group II is improper and should be withdrawn.

#### **Restriction between Group I and Group III**

In support of the restriction between Group I and Group III, the Examiner cited MPEP 806.05(h) which states that a process and a product can be shown to be distinct inventions if either or both of the following can be shown: (1) that the process for using a product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. Applicants traverse this restriction.

The Examiner then stated "in the instant case, the product of invention III can be used in a different process such as instructions for selecting or designing an orthodontic appliance." Thus, the Examiner appears to again base the restriction between Group I and Group III on the conclusion that process of claim 1 can be practiced by hand, while the product of Group III can be used to select or design an orthodontic appliance. This conclusion is incorrect for reasons set forth above. The process of Group I cannot be practiced by hand. The restriction between Group I and Group III is improper and should be withdrawn.

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Application Number 10/771,641  
Responsive to Office Action mailed October 11, 2006**Restriction between Group II and Group III**

The Examiner cited MPEP § 806.05(d) and restricted Group II and Group III on the reasoning that the groups are directed to different "subcombinations" that are usable together in a single combination. To support such a restriction, MPEP § 806.05(d) requires that the Examiner show, by way of example, that one of the subcombinations has utility other than in the disclosed combination. That is, the Examiner must show that one of the identified subcombinations has utility in some way other than the combination disclosed by the Applicant.

In the instant restriction requirement, the Examiner stated that "the subcombination of invention II has separate utility such as computer system for dental practitioner." The utility identified by the Examiner does not constitute utility "other than" the combination disclosed by the Applicant, as required by MPEP § 806.05(d). To the contrary, the pending application describes a computer system for use by a dental practitioner (as recited by claim 39) and a computer-readable medium (as recited by claim 75) usable by such a system. Contrary to the requirements of MPEP § 806.05(d), the Examiner has failed to show, by way of example, that one of the subcombinations has utility other than in the disclosed combination. The restriction between Group II and Group III is improper and should be withdrawn.

Please charge any additional fees or credit any overpayment to deposit account number 50-1778.

Date:

By:

November 6, 2006  
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